

REMARKS

The present invention is an electronic device, a hand-held radio communications device, a document reader, a car and a method for displaying text and providing speech synthesis of the text. An electronic device in accordance with an embodiment of the invention includes a user interface including a display 4, a speech synthesizer 16 including a loudspeaker which converts an input, dependent upon a text, to an audio output representative of a person reading the text; and a control 14, for controlling the display and for providing an input to the speech synthesizer, which controls the display of text, to provide an input corresponding to the displayed text to the speech synthesizer, and to highlight a portion or portions of the displayed text, wherein initiation of the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion. Figs. 3-7 and paragraphs [0043] - [0059] describe initiation of highlighting of portions of a body of text which is delayed relative to the audio output from the speaker 6.

The initiation of delaying of highlighting relative to the output of synthesized speech has distinct benefits. See paragraphs [0007] and [0008] of the Substitute Specification, wherein it is discussed that checking for mispronunciation is facilitated and furthermore, when a user is multitasking while listening to synthesized speech, the user is directed to the relevant portion of text with a minimum of distraction without having to scan the entire text.

Claims 1-4, 8, 10, 12, 20, 25-27, 30-32 and 35 stand rejected under 35 U.S.C. §102 as being anticipated by United States Patent 5,875,428 (Kurzweil et al). These grounds of rejection are traversed for the following reasons.

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In section 6 of the Office Action “Response to Arguments” the Examiner states as follows:

“Regarding claims 1-4, 10, 12, 20, 25-27, 30-32 and 35 Applicant states, “Kurzweil et al. is not teach delayed highlighting.” However, Kurzweil disclose a step in which an event is awaited by the software during the highlighting process. The highlighting process remains in a particular state until an event occurs (Col. 5, Ln. 66-67; Col. 6, Ln. 1-6). This is the equivalent of delayed highlighting.”

The Examiner’s reasoning is fundamentally flawed for the following reasons.

Independent claims 1, 26, 27, 28 and 31 recite highlighting a portion or portions of displayed text “wherein initiation of the highlighting of a text portion” is delayed with respect to the audio output corresponding to the text portion. In this regard claims 1, 26 and 27 respectively recite “[a]n electronic device comprising...; “[a] hand-held radio communications device comprising. ...;” and [a] document reader comprising a user interface... each of which recite “control means for controlling the display and for providing an input to the speech synthesizer means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesizer, and to highlight a portion of portions of the displayed text, wherein initiation of the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion” claim 28 recites “[a] car or a document reader comprising...control means for controlling the display and for providing an input to the speech synthesizer means, arranged to control the display of a text, to provide an input corresponding to the displayed text to the speech synthesizer, and to highlight a portion or portions of the displayed text, wherein initiation of the highlighting of the text portion is delayed with

respect to the audio output corresponding to a text portion".

Claim 30 recites "[a] method for displaying text and providing speech synthesis of the text comprises the steps of:...determining that the text portion should be highlighted; delaying and then highlighting the text portion."; claim 31 recites "[a]n electronic device comprising: ...control means, for controlling the display and providing an input to the speech synthesizer means, arranged to control the display of the text, to provide an input corresponding to the display text to the speech synthesizer means; and to delay the display of a text portion with respect to the audio output corresponding to the text portion" and claim 32 recites "[a] method for displaying text and providing speech synthesis of the text comprising the steps of: converting a text portion to audio output; delaying and then displaying a text."

It is therefore seen that each of the independent claims in various degrees of scope in substance recites a sequence of events in which initiation of the highlighting of display of the text portion is delayed with respect to the audio output corresponding to the text portion which has no counterpart in Kurzweil et al.

As may be seen from the analysis of Fig. 3 of Kurzweil et al., the sequence of highlighting in Kurzweil et al. is opposite to that of the present invention. Specifically, as may be seen the user points to an image word as indicated by step 42. Thereafter the coordinates of the word are searched at step 46 followed by extraction at step 50 of the word and finally speech synthesis at step 52. In other words, initiation of highlighting of the words occurs before the speech synthesis which is exactly the opposite of that set forth by the claimed invention.

Kurzweil et al do not teach anything pertaining to initiation of highlighting of display of text portion is delayed with respect to the audio output corresponding to the text portion. Initiation of highlighting always precedes speech synthesis. See Fig. 3 and column 5, lines 66-67, to column 6, lines 1-8, which disclose maintaining highlighting and determining an endpoint of highlighting which has nothing to do with the initiation of highlighting.

In section 6 of the response to the arguments, the Examiner states "(t)he highlighting process remains in a particular state until an event occurs (Col. 5, Ln. 66-67; Col. 6, Ln. 1-6)" and "[t]his is the equivalent of the delaying highlighting." The portion of Kurzweil et al. to which the Examiner refers is precisely where the Examiner may see that the highlighting is occurring before the speech synthesis so regardless of whatever the state of the highlighting process, highlighting always precedes speech synthesis instead of the relationship as recited in the independent claims in which initiation of highlighting is being applied after speech synthesis. Moreover in the discussion of the rejection of page 3 of the Office Action, the Examiner erroneously concludes "the word is not highlighted until the word is read allowed to the user" which is clearly contradicted by Fig. 3 of Kurzweil et al.

The recitation of "initiation of the highlighting of a text portion is delayed with respect to the audio output corresponding to the text portion" which has clear support in the disclosure of Figs. 3-7, and the temporal recitations in claims 30 and 32 excludes a simultaneous highlighting and audio output.

Accordingly, the rejection of independent claims 1, 26, 27 and 30-32 on grounds of anticipation is erroneous and should be withdrawn.

Moreover, there is no basis in the record why a person of ordinary skill in the art would be lead to modify the teachings of Kurzweil et al. to reverse the speech synthesis and highlighting process as depicted in Fig. 3 of Kurzweil et al. except by impermissible hindsight.

Dependent claims 2-4, 8, 10, 12, 20, 25 and 35 further limit the aforementioned independent claims in a manner which is not anticipated by Kurzweil et al. Since the highlighting in Kurzweil et al. precedes the speech synthesis, the subject matter of the dependent claims is also not anticipated. Furthermore the dependent claims further limit the subject matter of the independent claims in a manner in which is not obvious in view of the differences as noted above with respect to the independent claims.

Claims 5-7, 9, 11, 13, 16-19, 21-24, 28, 33-34 and 36-39 stand rejected as being obvious over Kurzweil et al. These grounds of rejections are traversed for the following reasons.

Claim 5 further limits claim 4 in reciting control means unselectively extends the highlighting through all of the text. In the first place the deficiencies of Kurzweil et al. with respect to their fundamentally different mode of operation are set forth with respect to the discussion of claim 1. Moreover, it is submitted that the Examiner's stated grounds of rejection in claim 5 do not rely upon the citation of prior art and merely state what the Examiner considers to be obvious without demonstration of the differences being obvious to a person of ordinary skill in the art by the citation of prior art. Accordingly, the rejection of claim 5 is traversed. Similarly the rejection of claims 6, 7, 9, 11, 13, 16, 17, 18, 19, 21, 22, 23 and 24 rely upon the Examiner's contention that the subject matter recited thereon is obvious without providing an objective basis in the

record by the citation of prior art for such conclusion. Such a conclusion is fundamentally flawed when the Examiner is suggesting, without the citation of prior art, that either delaying and/or highlighting as recited in the dependent claims is obvious when the operation of Kurzweil et al. is fundamentally different by the application of highlighting, as indicated at step 48 in Fig. 3 of Kurzweil et al., being before the speech synthesis at step 52 therein.

Claim 28 is patentable for the same reasons set forth above with respect to claim 1.

Claims 33-39 recite delaying, lagging or a variation of highlighting which is not rendered obvious in view of the fundamental differences between Kurzweil et al. and the independent claims as discussed above and the failure of the Examiner to cite prior art demonstrating the differences are obvious.

Claims 14 and 15 stand rejected under 35 U.S.C. §103 as being unpatentable over Kurzweil et al. in view of United States Patent 5,065,345 (Knowles et al.). Knowles et al. has been cited for disclosing highlighting words that are in the dictionary when displayed on the screen. However, the citation of Knowles et al. does not cure the efficiencies noted above with respect to the rejection of independent claim 1.

The specification and claims have been amended to correct typographical errors.

In view of the foregoing amendments and remarks, it is submitted that each of the claims in the application is in condition for allowance. Accordingly, early allowance thereof is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 C.F.R. § 1.136. Please charge any shortage in fees due in connection with the filing of

this paper, including extension of time fees, to Deposit Account No. 01-2135
(1302.39020X00) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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